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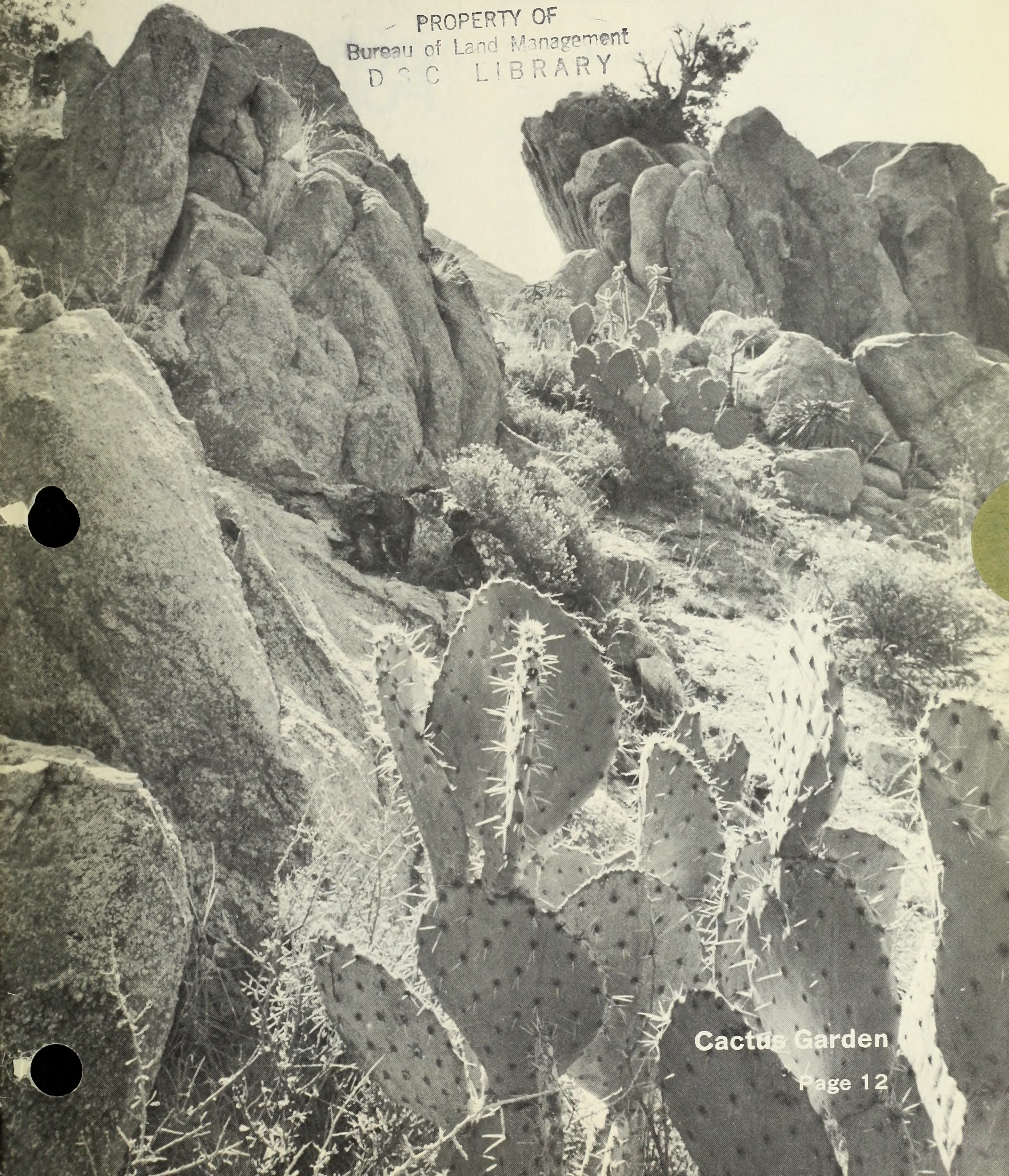

Cactus Garden

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SPRING 1968
Vol. 18, No. [illegible] 2

U.S. DEPARTMENT OF THE INTERIOR
Stewart L. Udall, Secretary

BUREAU OF LAND MANAGEMENT
Boyd L. Rasmussen, Director

As the Nation's principal conservation agency, the Department of the Interior works to assure that nonrenewable resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

OUR PUBLIC LANDS, the official publication of the Bureau of Land Management, U.S. Department of the Interior, is issued in January, April, July, and October.

Ed Parker, Editor

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OUR PUBLIC LANDS

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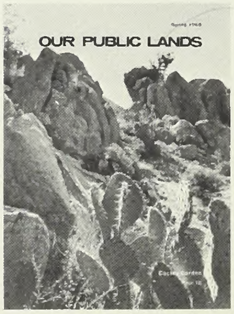

The Cover

Beavertail prickly pear, cholla, sage, juniper, four-wing saltbush, and chamisa—all vying for a place in the sun.

Photo by Doyle Kline

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HIGHLIGHTS

President Cites BLM Offices

Personnel of five Bureau of Land Management offices in Oregon received a citation, signed by President Johnson, for outstanding achievement in timber salvage and land rehabilitation following the disastrous Oxbow fire of 1966. Cited for outstanding achievement were the Oregon State Office, the Portland Service Center, and the Coos Bay, Eugene, and Roseburg District Offices.

BLM Director Rasmussen presented the citation on behalf of the President in a ceremony in Portland, uary 1, 1968. Secretary Udall wired congratulations.

The Oxbow fire started on August 20, 1966, and swept across public and private land in western Oregon's Cascade Range. When extinguished 8 days later it had destroyed or damaged more than 43,000 acres of prime timber, over half of which was on public land managed by BLM.

On BLM land it left nearly a half billion board feet of dead or dying timber, enough to build 100,000 homes.

Immediate action by BLM, the Oregon Timber Industry, and Oregon State agencies was necessary to salvage the valuable timber promptly and to prevent beetle infestation that could have doubled the loss.

BLM rescheduled its timber sales and during the next 15 months issued 71 salvage sale contracts. In addition to their regular work during the same period, personnel of the five offices cited worked more than 7 man-years of overtime. Five bridges were rebuilt, 26 miles of fire trails and corridors were constructed, 5,200 acres were seeded to Douglas-fir, and 12,000 acres were seeded to Indian brown mustard to stabilize soils and provide a nurse crop for tree seedlings.

By compressing the salvage time, $3,375,000 worth of timber was harvested that would have otherwise been lost because of sapwood deterioration and timber breakage as the trees would have become increasingly brittle over a longer period of time. Prompt reforestation is saving another $680,000 by eliminating the regeneration lag that would have occurred during normal programing time.

Record Offshore Oil Sale

The old land office business was never like this! In a record-setting sale of Outer Continental Shelf oil leases on February 6, 1968, BLM officials opened bids that brought the U.S. Treasury an average of $6.7 million a minute—for an hour and a half. Total high bonus bids were $602,719,261.60 for 71 tracts covering 363,181 acres in the Channel Islands area near Santa Barbara, Calif.

Held in Los Angeles, the sale was conducted by Pacific Coast OCS Manager William Grant. Assisting Grant were the staff of the New Orleans OCS office plus fiscal help from Washington and BLM's two service centers.

Industry representatives at Outer Continental Shelf sales are usually stone-faced as bids are announced. But as records continued to tumble, audible gasps followed high bids that topped previous records eight times before the last bid was called.

The last bid, the 164th, brought the sale to a dramatic conclusion. Tract 402, covering 5,400 acres in 200 feet of water, received four bids. The fourth of these and the last of the sale came from a combine of Gulf, Texaco, Mobil, and Union of California who bid $61,418,000, an average of $11,373.70 an acre. This was the highest ever bid for a single OCS tract, the highest per acre, and the highest in a sale that topped previous OCS offers by $92 million.

Pacific Coast OCS Manager Grant announced the bids, which were opened by New Orleans OCS Manager John Rankin. Tallying the high bids and accumulating total figures were Finance Officer Arnold Petty and staff. Some 500 industry and press representatives attended.

Unsuccessful bids were returned by close of business that day. As Finance Officer Petty noted, the unreturned checks were costing companies $23,000 daily in interest. Total money "exposed" in the sale was $1,293,601,113.26.

Significant in the sale was the spirited bidding for tracts in water far deeper than previously drilled. Humble bid $11.6 million for tract 389, which lies mostly in water 1,200 feet deep. So far, the industry has not apparently attempted to locate offshore rigs in more than 600 feet of water.

Mountaintop Tragedy

The Nation waited with growing concern early in January 1968 when a U.S. Marine C54 transport was reported missing in northern Nevada with 19 persons aboard. Blizzard conditions hampered immediate rescue efforts, but combined forces directed by Sheriff George Schwin of Lander County searched until nightfall.

The storm abated, and rescue crews continued the search the next morning, Thursday, January 10. Shortly after dawn, BLM employees Eugene L. Corbridge and Wallace H. Swanson, Jr., using fieldglasses, spotted the wreck from their vehicle.

The four-engine aircraft had crashed near the peak of 9,779-foot Mount Tobin, highest point in the desolate northeastern Nevada area and 32 miles southwest of Battle Mountain, Nev. Corbridge and Swanson reported immediately to Sheriff Schwin who was riding behind them in a second BLM vehicle driven by Bill Sharp. The Sheriff reported the find to his office and to Western Air Rescue over the radio system of BLM's District Office in Battle Mountain.

The Sheriff and Bill Sharp stayed at the foot of the mountain to direct rescue efforts, and Corbridge and Swanson started hiking toward the crash. Carrying only a first aid kit, some signal flares, a BLM radio, and a canteen, and slogging through snow 18 inches deep, it took them 6 hours to reach the wreckage. They used the radio to report to the Nation the first details of the crash and the fate of the aircraft's crew and passengers.

The aircraft had burned following impact, and a preliminary search indicated there probably were no survivors. Some victims had been trapped in the wreckage, and a number had been thrown out. One person had survived long enough to walk some 800 yards from the fire-charred plane in spite of being injured and burned. His footprints were still visible in the snow. The wristwatch of another victim was stopped at 3:25 p.m.

Corbridge and Swanson spent Thursday afternoon on the mountaintop searching snow-covered slopes and ravines for crash victims and possible survivors.

By nightfall they had found 12 bodies. Western Air Rescue asked them to stay on the mountain overnight, and a rescue plane dropped them food, fuelwood, sleeping bags, and a tent. The fuelwood went into a deep ravine and could not be reached.

The next morning a helicopter landed six paramedics to complete the search and direct the removal of the bodies. All 19 were recovered.

Corbridge, 38, is a range conservationist, and Swanson, 32, is a district forester. Both have had training in first aid and rescue procedures, and have participated in other searches for missing aircraft.

BLM Director, Boyd L. Rasmussen, commended [illegible] men for their heroic efforts and expressed the "tha[illegible] of all their associates for a job well done despite great personal risk and hardship."

Life of Public Land Laws Extended

On December 6, 1967, Congress passed a bill, H.R. 12121, to extend the life of three public lands laws by 1½ years. The extension was granted to the Public Land Law Review Commission Act, the Classification and Multiple-Use Act, and the Public Land Sale Act. All would have expired June 30, 1969.

Oil and Gas Nominations Sought for Gulf of Alaska Offshore Lands

The Department of the Interior is asking the oil and gas industry to nominate those tracts of submerged lands in the Gulf of Alaska that they would like to have offered for oil and gas leasing. This is the first call for nominations for Alaska's offshore lands. All nominations must be submitted to the Bureau of Land Management, Washington, D.C., by December 2, 1968.

BLM officials say that if sufficient interest develops, leasing will be scheduled for the fourth quarter of 19[illegible] Because of the short period of time that field crews [illegible] work in the Alaskan climate, this schedule would allow two full seasons for exploratory operations between the call for nominations and the sale.

Committee to Review Public Response to Section 15 Grazing

A special Committee has been appointed by Interior Secretary Udall to review comments received from the public in response to a departmental proposal to revise section 15 grazing regulations. After reviewing the comments, the Committee will submit its recommendations to the National Advisory Board Council at its annual meeting in April.

The Committee is composed of members of the National Advisory Board Council's Resource Use Committee plus two members representing section 15 users and two members representing other public land users.

Leonard Horn, Chairman of NABC's Resource Use Committee, Walcott, Colo., and Eugene Zumwalt, Assistant BLM Director for Resource Management, Washington, D.C., will be cochairmen. Gene Etchart, Chairman of NABC, will be an ex officio member.

Searching for Minnesota's "Lost" Islands

Taking inventory by snowmobile and boat

One of Minnesota's "lost" islands. Beaver House in foreground.

Despite a bone-chilling 25 degrees below zero, Project Manager Wallace Chapin, left, Surveyor Gerald Pittman, center, and Realty Specialist Alan Evans continue a snowmobile survey of this island in Little Comorant Lake.

AMERICA's OLDTIME surveyors realized that a straight line is the shortest—and fastest—distance between two points. Because they did, and because in surveying Minnesota they faced difficult land conditions and periods of high water, the ownership of thousands of islands in the State is still undetermined.

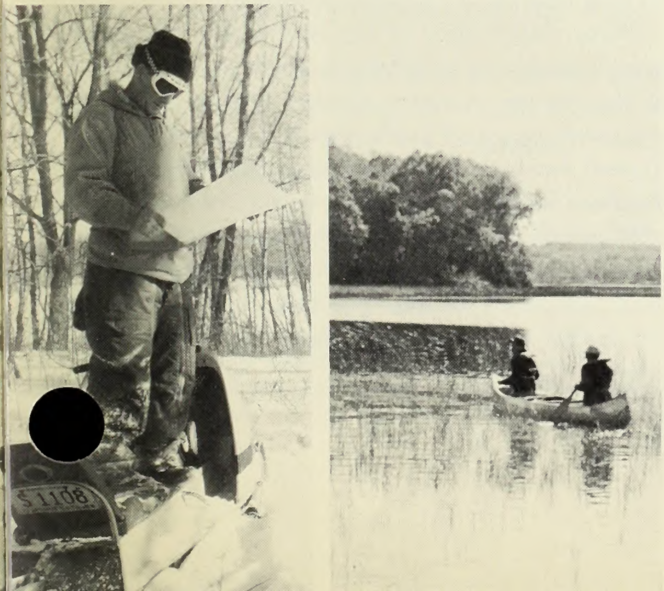
During the early years of the Nation's westward expansion, surveys were done by contract, and surveyors were paid by the mile of completed survey line. These oldtimers were sometimes interested in the fast buck, and they knew they could run straight survey lines faster than they could survey the meandering boundaries of an island. As a result, they avoided islands like the plague and concentrated instead on terrain where they could chalk up more miles in a day's work.

Many of Minnesota's unsurveyed islands belong to the public. Under the public land laws, the ownership of islands in navigable waters that existed prior to statehood did not pass to the States. The fact that the islands were omitted when the original surveys of the mainland were made does not change the situation.

This all adds up to a large number of islands in Minnesota—some quite valuable for outdoor recreation and other uses—that belong to the American people.

The need to identify these publicly owned islands has become more pressing in recent years. The State of Minnesota and its county governments are interested in them because some islands have State park potential and others would be ideal campsites for boating campers. And of course private individuals are interested in them as potential homesites.

There are also about 41,000 acres of other public lands in Minnesota that need a further look. In 1964,



Left, surveyor Gerald Pittman checks the plat of a surveyed island. Right, two members of the island inventory team paddle toward another unsurveyed island. Reeds in the foreground probably looked like an island in aerial photographs.

By CHUCK MOST

Assistant to the State Director
BLM State Office, Billings, Mont.

Congress passed the Classification and Multiple-Use Act. It directed the Bureau of Land Management, which manages the public lands, to review the lands under its jurisdiction and to classify them for multiple-use management, or for disposal.

Public requests for information on the status of islands in Minnesota led to congressional authorization for a complete inventory of islands in the State.

Handling this difficult job become the special assignment of a team of four men that were handpicked for their experience from three BLM offices. Wallace E. Chapin, formerly with BLM's State Office in Billings, Mont., is the leader of the inventory project. Chapin's staff includes Gerald F. Pittman, a cadastral surveyor, also from Billings; John F. Bowers, a natural resource specialist from Portland, Oreg.; and Alan Evans, a realty specialist from Malta, Mont. James R. Sandison of Duluth, Minn., is employed as project clerk. These men set up shop in Duluth in September 1966 as a project office under the Montana State Office of the Bureau of Land Management.

Because the island inventory in Minnesota is the first of its kind, new techniques had to be developed. The Duluth staff devised a land and island inventory system complete with forms, data processing format, and recordkeeping system.

As in any inventory or recording job, much paperwork is involved. Field reconnaissance, however, remains the backbone of the Minnesota operation.

There are numerous problems associated with field reconnaissance of an island in the middle of a northern lake, and not the least of these is just getting there. Chapin and his team have found only two practical methods for working these islands—use a boat during warmer months while the water is open, or wait until freezeup and cross the ice. In some areas of Minnesota, cars can be driven to the water's edge, but in the more isolated areas, boats have to be portaged in for summer work.

Snowmobiles, open, power-driven sleds that can zip across the winter-locked landscape at 35 miles per hour, have been a boon to the island inventory team. After the lakes freeze over and become covered with snow, practically all areas to be included in the inventory are within easy striking distance of the fast-stepping snowmobiles.

After reaching an island, the inventory crew identifies it on the appropriate aerial photo. There have been times when the aerial photos showed "islands" that simply weren't there! Usually these are shallow areas where reeds or other aquatic plants extend above the surface.

Determining an island's resource potential is a vital part of the inventory project. Timber and other types of vegetation are recorded, and evidence of previ[illegible] use or present occupancy is noted.

The potential for outdoor recreation is obvious for the majority of islands covered to date. Boat campers are already using them, and fishermen and hunters are finding such areas ideal for their favorite pursuits. Most of the islands located by the BLM inventory team are also important wildlife habitat. Several large islands in the "pothole" counties of western Minnesota are nesting sites, or rookeries, for great blue herons, cormorants, bitterns, and other colonial nesting birds. Since islands are isolated from the usual four-footed predators, mallards and wood ducks find them comparatively safe places to rear their young.

The inventory techniques developed by the Duluth staff were first tested in Becker County in west-central Minnesota. This pilot study discovered 69 unsurveyed islands totaling 80 acres. Since then, field reconnaissance has been completed in 43 of Minnesota's 87 counties, mostly in the south and west portions of the State. Although numerically the field investigations are about half finished, the remaining counties contain some of Minnesota's most rugged areas, including those bordering the famous northern canoe country.

Classification of these islands under the public land laws will begin after they have been inventoried. T[illegible] proper management of such scattered pieces of land [illegible] require various arrangements. The decision in some cases may be to transfer them to other Federal agencies such as the Forest Service, or to sell them to State or county governments under the provisions of the Recreation and Public Purposes Act.

The Bureau of Land Management is working closely with the Minnesota Department of Conservation because of that agency's special interest in the recreational use of these lands. Whether any of the islands will be sold into private ownership is questionable because of their high public recreation potential.

When classification of the islands does get underway, local citizens in Minnesota will have a direct voice in the outcome. A system of open hearings, meetings, and other means of public participation will help the Bureau decide the best arrangements that can be made for these lands.

Meanwhile, spring has silenced the growl of snowmobiles in Minnesota's back country. And a crew of land technicians are readying their lightweight boats for another summer of searching for Minnesota's "lost" islands. □

PRONGHORNS vs. FENCES

Finding out how to fence livestock without hindering wildlife

DO PRONGHORN ANTELOPE cross livestock fences? That question has been discussed—and often hotly debated—in Wyoming and other Western States for years.

There is still no consensus as to the answer, but at least some light is now being shed on the problem of fencing livestock for control and management without harmfully affecting wildlife.

A number of people are working to obtain the facts, not mere opinion, and they are seeking the facts jointly.

By REX S. ZOBELL
Wildlife Specialist
BLM State Office, Cheyenne, Wyo.

This is important, for too often in the past those concerned with the question have worked independently and have viewed the motives of others with suspicion. Under such circumstances communications often broke down and hard feelings sometimes developed. This in turn led to occasional exchanges of charges and countercharges until possible answers to the question—if not the question itself—slipped from view.

Emotions run strong where wildlife is concerned. Many people find it difficult to set aside their preconceived opinions while searching for solutions to new or old problems. But it's being done on the high, windswept plains of Wyoming. And if it can be continued, the land, the pronghorns, and livestock using the ranges will benefit.

Fences Affect Wildlife

Fences are generally required to control livestock and provide proper management of rangelands. But the effects of such fences on wildlife, particularly pronghorns, have long been of concern to land and wildlife managers, livestockmen, sportsmen, and other people. What has been needed is a fence that will control livestock, but at the same time allow big game animals to pass over, through, or under it. Some big game animals have little difficulty with fences. Deer in good condition will readily jump almost any kind of livestock fence. But pronghorns often seem baffled by a livestock fence and generally prefer to crawl under it. Here it must be recognized that livestock fences are relatively new on some antelope ranges, and every animal, including man, has some difficulty with the unfamiliar.

Charles H. Rouse, of the U.S. Fish and Wildlife Service, was one of the first to take a hard look at the problems created by livestock fences in pronghorn country. From 1951 to 1953 he conducted an observation-interview study of the situation in Montana and Wyoming. Rouse then recommended certain fence types for rangelands used by pronghorns and domestic sheep.

Fences constructed to control cattle may also cause some problems for antelope, but generally there is enough space between the bottom wire and the ground to allow pronghorns to crawl under. However, cattle fences will not hold domestic sheep. A sheep-tight fence requires that wires be spaced more closely and almost next to the ground. In most instances net-wire is used.

Further Research Needed

The Bureau of Land Management adopted Rouse's recommendations, but it soon became apparent that additional research was necessary before a fence could be developed that would control livestock but not unduly hinder antelope. In 1962 and 1963, personnel from the Wyoming Game and Fish Department, the Bureau of Sport Fisheries and Wildlife, the Bureau of Land Management, and Utah State University agreed that further research was needed, and a cooperative study was set up. Wildlife graduate students, Juan Spillett and David Sill of Utah State University, were assigned to conduct studies on the reaction of pronghorns to different types of fences. Also cooperating in the studies were the National Wildlife Federation, Wyoming Woo[illegible] Growers, and the Wyoming Stock Growers Associati[illegible] All contributed financial assistance. Two livestock operators in BLM's Rawlins District assisted the project. Curtis Rochelle contributed use of land, and Stuart Quealy helped provide sheep.

A 5-square-mile study area was selected in typical pronghorn and winter sheep range country in south-central Wyoming, 6½ miles north of Wamsutter. The area was made "antelope proof" with a 6-foot-high boundary fence, and different fence study plots, each 330 by 660 feet, were constructed within the area. Antelope for the study were rounded up from the surrounding country, run through a trap for marking, and placed in the fenced study plots. Trials were repeated in each season of the year.

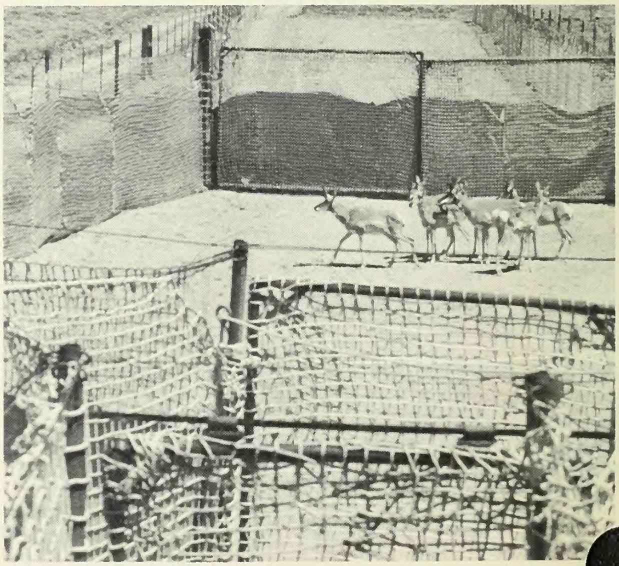
Fence types were first tested with pronghorns. Then when a fence showed promise of permitting pronghorn movement, it was tested with domestic sheep. The facilities available were used for other studies with pronghorns by the University of Wyoming and the Wyoming Game and Fish Commission.

Antelope Roundups

It was difficult to round up enough animals for the study, and it was equally difficult to handle prongho[illegible] like livestock and to get them into the study plots. BL[illegible] personnel from the Rawlins District participated in antelope roundups during the study, and an occasional black eye resulted from a too close encounter with a

Pronghorn ballet—fleeing for freedom after release in a fencing trial.

Antelope trap used during early trials.



pronghorn. But in spite of the unpredictable nature of the animals, the Wyoming weather, and administrative problems, the study proceeded and did provide some clues for followup field studies.

Fence types which appear to interfere the least with pronghorn movement and provide for sheep management are a 32-inch net-wire, a 26-inch net-wire with one barbed wire 4 inches above, and standard cattleguards placed in fences, preferably at corner locations.

Standard cattleguards will permit pronghorn movement if they are placed so the animals can readily find them. Corner locations are more easily found by pronghorns. Both pronghorns and sheep readily crossed simulated cattleguards. Apparently pronghorns possess an inherent learning ability to cross fences, and through experience they might be expected to learn how to cross various fence types. Fence types which permit pronghorn movement and retain sheep are now being field tested under normal range conditions.

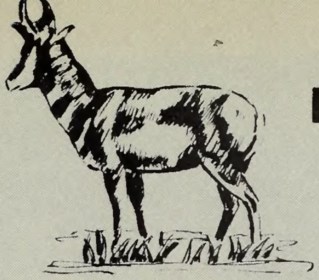
Devices tested which indicate good possibilities for pronghorn movement, but which need more testing with sheep are dirt ramps, preferably at corner locations, electric fences, and horizontal panels.

An incidental observation during the study was that both pronghorns and sheep were able to survive the winter of 1963–64 at the study site and to produce young in the spring. Snowdrifts in the wintertime provided a natural device for pronghorns to cross fences as [illegible]-foot drifts were common. Some adult pronghorns under stress in trapping operations, were able to jump the 8-foot-high trap. Some pronghorns also jumped over men working in the trap. High barbed wire fence types sometimes caused injuries to pronghorns or sheep attempting to jump over or through them.

Other studies were made at the Wamsutter site on pronghorn food habits and competition between sheep and pronghorns. Game and fish personnel also studied the baffling fawn mortality problem and water consumption of pronghorns.

Additional field testing is now needed to learn more about what type of fences will provide for livestock management and permit movement of pronghorns. The location of devices to facilitate movement by pronghorns also needs field study.

The Wamsutter study has provided facts about the behavior of pronghorns when confronted with various fence types in confined areas. By following up on this information, land managers can help provide a place for these animals in the overall multiple-use management of western rangelands so that the pronghorns may continue to be one of the important big game animals in the West. ☐



THE PRONGHORN

A brief history

WHEN LEWIS AND CLARK traveled the wilderness from St. Louis to the Pacific Ocean in 1805, they saw vast herds of pronghorns (*Antilocapra americana*).

It was estimated then that there were 35 million pronghorns roaming the continent. In the years since, antelope populations have fluctuated greatly. Within 100 years after Lewis and Clark, less than 20,000 antelope were in the country, and it was predicted they were doomed to extinction. Today, with over a million antelope harvested in the past 30 years, the pronghorn is the second most important big game animal in North America, exceeded only by deer.

The pronghorn's range in the early 19th century covered most of the Great Plains, the high sagebrush plateaus and grassland valleys in the Western States, and parts of south-central Canada and northern Mexico. By the 1920's this ancestral range had been reduced considerably by the intrusion of man.

Antelope now, however, have returned to most of their former regions except the States east of the Mississippi River. In addition, antelope have been translocated to States in which the animals had not lived in historical times: Florida, Washington, and Hawaii.

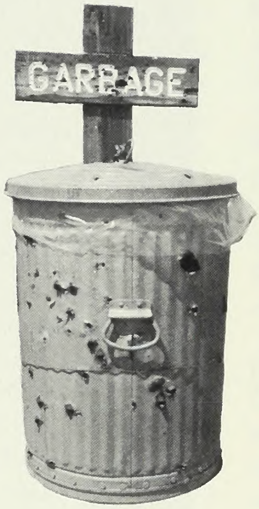
In 1934, three States, Idaho, New Mexico, and Wyoming, held open seasons on antelope and harvested less than 2,000 head. In 1964, 14 States had antelope hunting seasons and some 75,000 were harvested.

Why the great fluctuation in antelope populations? It is apparent that antelope numbers decreased rapidly as the Nation grew westward. Herds were reduced directly and quickly by year-round shooting, and were kept small for many years because of poaching and commercial hunting, and the loss of habitat to extensive agriculture, competition from livestock, changes in land uses, and the building of railroads, highways, and cities.

But during the last 50 years pronghorn populations have increased at a record rate, chiefly for three reasons: Controlled hunting, new and improved wildlife management practices, and the restoration of the antelope's ancentral range to good wildlife habitat. ☐

By JIM YOAKUM
Wildlife Management Biologist
BLM State Office, Reno, Nev.

Landscape decoration
courtesy of junk-dumpers.



IN THEIR OWN BACKYARDS

Trash, junk, and vandalism deface the public lands

IN MANY AREAS of the West, thoughtless peop[illegible] are dumping trash, abandoning old automobiles and other junk, and shooting holes in everything in sight—right in their own backyard.

Perhaps these vandals and junk-dumpers don't consider the public lands as their own backyard, and perhaps they are oblivious to the meaning and values of these vast open spaces. But not so with most people.

Drive into an area of public land away from population centers on any weekend. You will find campers, hikers, photographers, hunters, rockhounds, and picnickers, as well as people who just want a little more elbow room. To these citizens, the public lands that belong to all of us are their own backyard, and they enjoy them and help protect them as such.

By far the great majority of users of the public land do not leave trash and do not destroy or deface anything as they follow their recreational interest and

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By GORDON W. FLINT

Public Service Chief
BLM District and Land Office
Riverside, Calif.

Explorer Scouts clean trash from the public lands.

joy themselves in the outdoors. In many cases they ave an area cleaner than they found it. The accompanying photos, however, show all too plainly how a few thoughtless, careless people can ruin a spot for everyone. These photos were taken in California, but the conditions they show are typical of many public land areas in the 11 Western States. They serve here as an example of litter and vandalism problems the Bureau of Land Management faces in managing more than 159 million acres of public lands in the West.

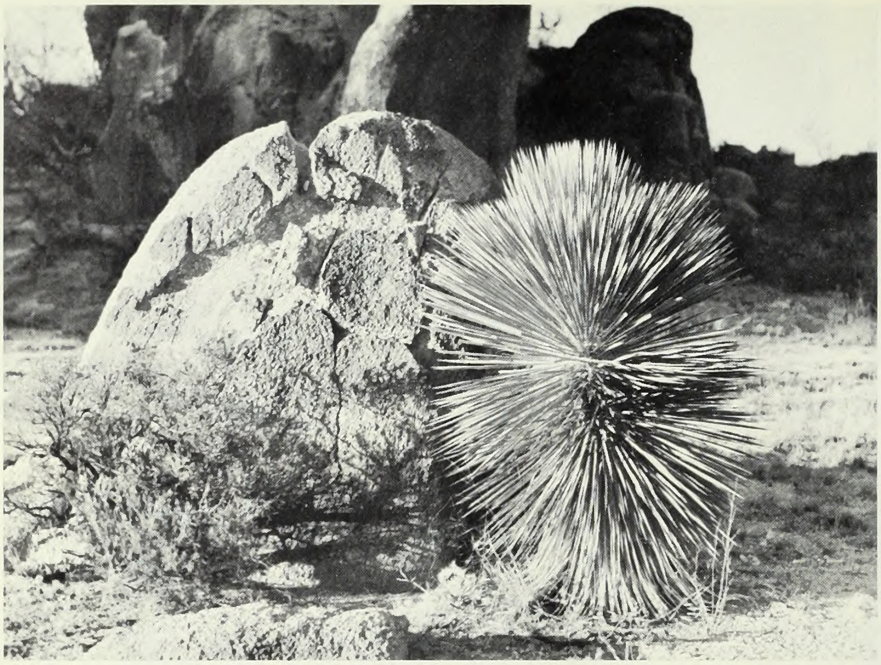
These are serious problems that concern all good citizens, and they carry a price tag. Only so many holes can be shot into a road sign before it becomes useless as a sign and must be replaced. Trash containers, made of heavy guage steel and zinc coated, should last many years. But rifle bullets are destroying many such containers long before they would otherwise need to be replaced. Money that could be used to develop more facilities for public enjoyment too often must be diverted to replace destroyed property and to remove trash and junk.

The Bureau of Land Management has neither the funds nor the manpower that it would take to patrol public lands that are widely scattered throughout the West and to enforce laws against destroying or damaging public property. BLM must depend upon the users of the land and facilities to treat them as their own—which, in fact, they are.

Nor are adequate funds and manpower available to clean up trash and to remove old car bodies and a profusion of assorted junk that can be seen in many places on the public lands.

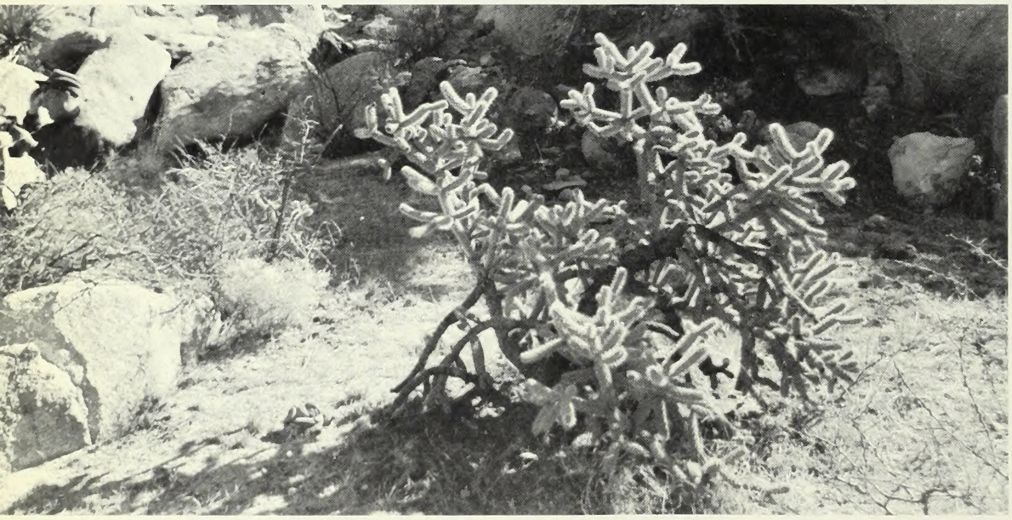
These problems of litter and vandalism will not go away of their own accord, and an acceptable solution to them must be found. Civic minded communities, groups, and individuals in some States have cooperated with the Bureau in organizing and carrying out local cleanup campaigns. Such efforts are commendable. They produce good results and, to some degree, reduce vandalism. Eventually, cleanup and protection activities, either volunteer or financed by government agencies, will have to be extended to all littered and defaced areas of the public lands.

But in the meantime, simply figuring out ways to clean up after litterbugs, to replace vandal-destroyed property, is not a satisfactory solution. The most acceptable solution lies in each citizen developing enough pride in his own backyard so that he will leave it at least as clean as he finds it, and not shot full of holes, either. ☐

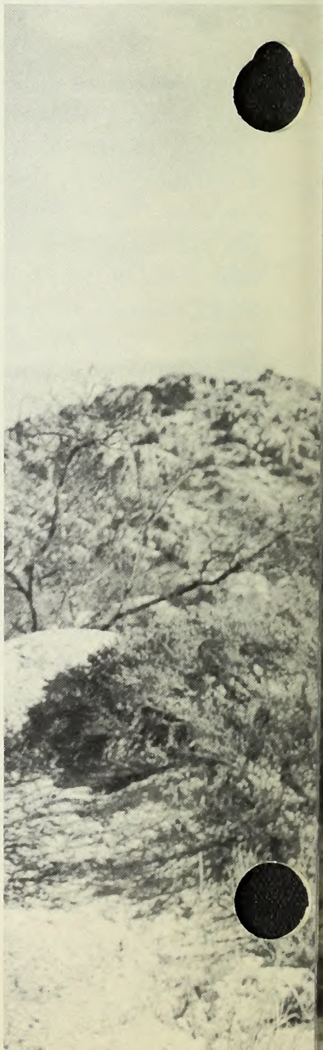


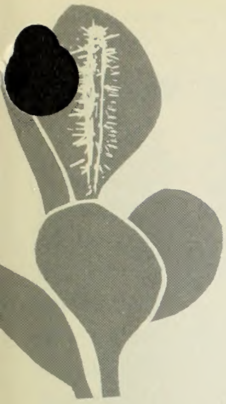
One of Nature's pleasing arrangements:
the bayonet leaves of the yucca crowded against weathered granite.

Cholla



Parrots huddled on a perch?





CACTUS GARDEN

ONE OF the many scenic gems of the public lands is in southwest New Mexico near the Arizona border—the cactus-adorned rock garden that is pictured here as it has been landscaped by nature.

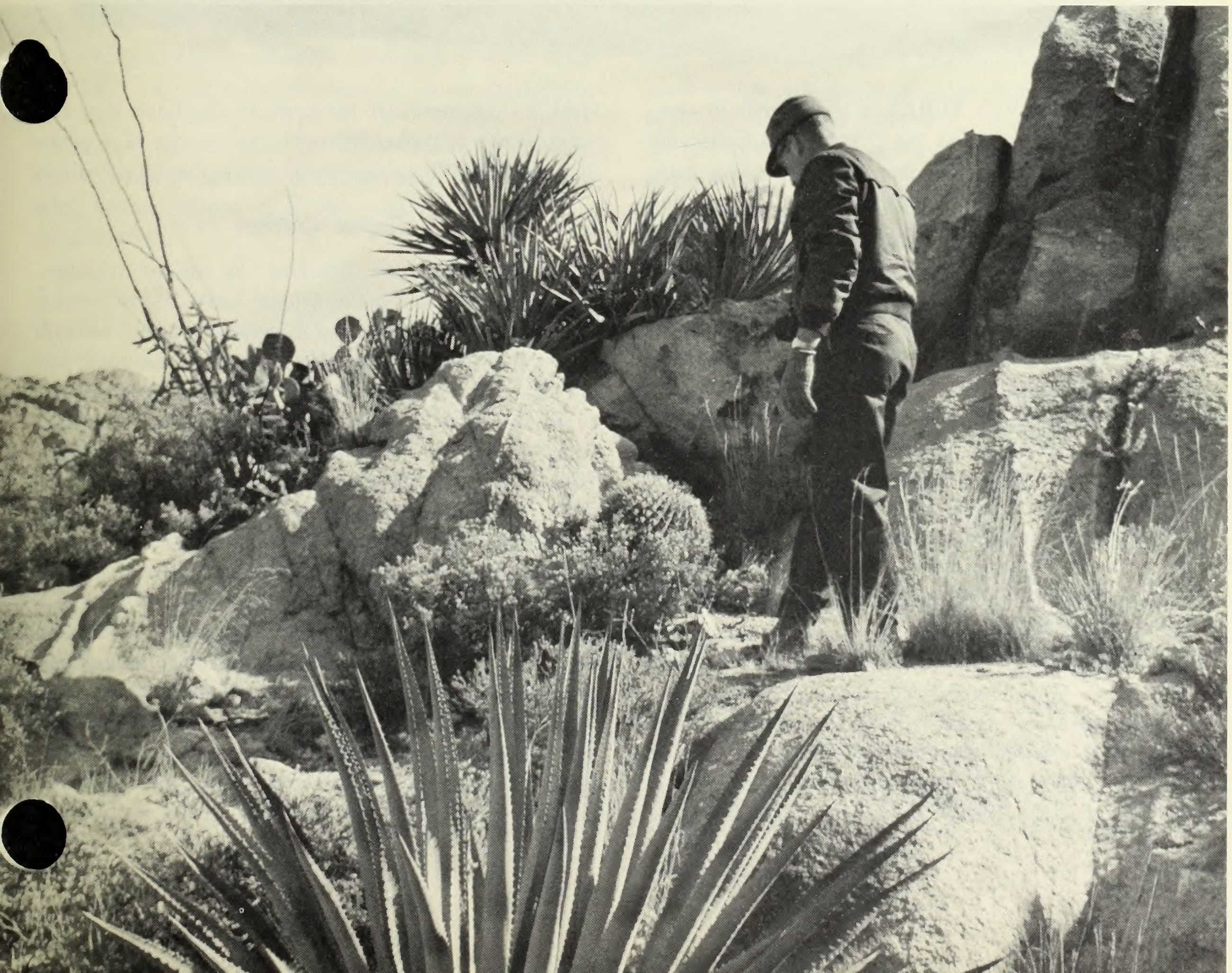
It's not large for a natural, outdoor garden, since it's confined to one small canyon—but then a landscape need not always stretch from horizon to horizon to be beautiful.

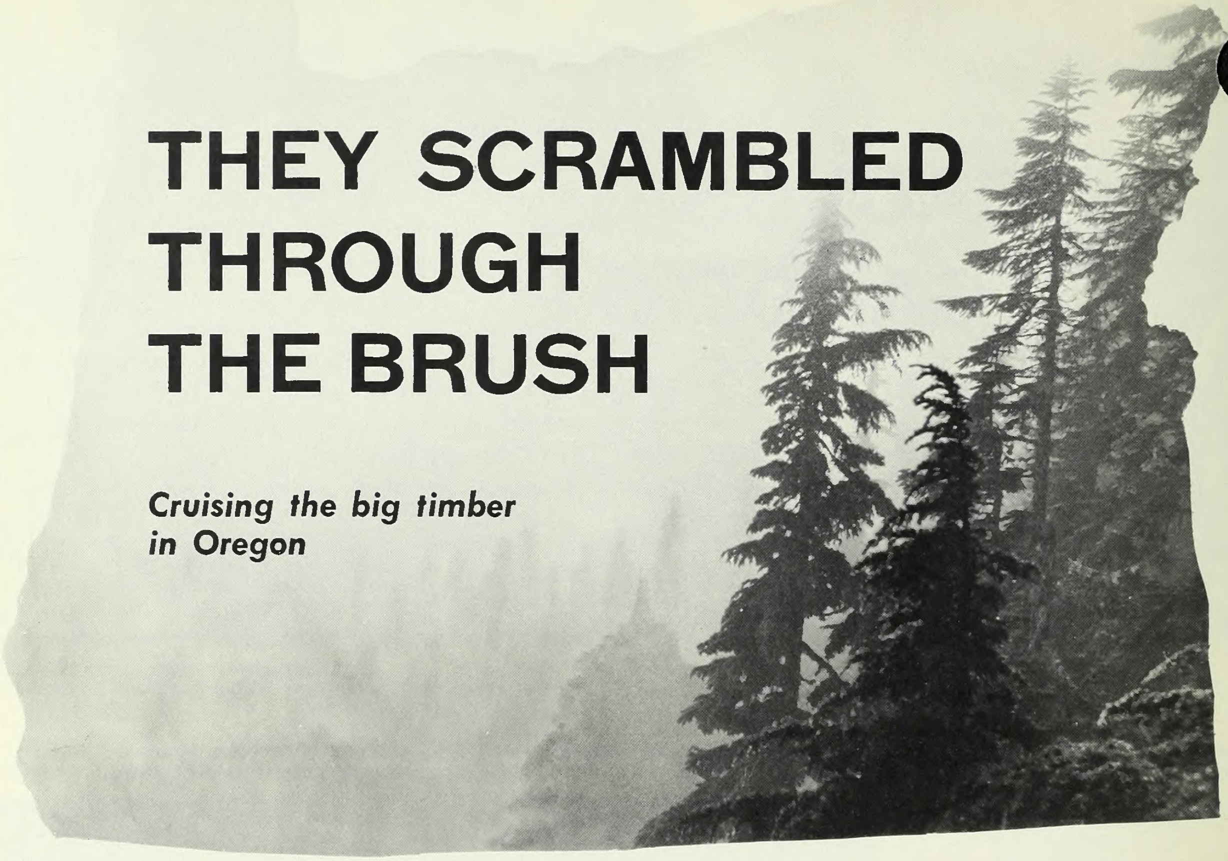
Masses of granite, weathered into fantastic shapes that tease the imagination, loom skyward throughout the canyon. And softening the rough-textured surfaces of the granite giants are a profusion of cactus and other plants that thrive in the austere climate of the desert. Everywhere the visitor turns, especially if he also is a photographer, another scene of earth, rock, shrub, and sky awaits his pleasure.

Here, as in countless other places on the public lands (see back cover), is some of the best of the American outdoors—with plenty of room to roam.

Photos and text by DOYLE KLINE
Assistant to the State Director
BLM State Office, Santa Fe, N. Mex.

Agave (foreground), ocotillo (long stems on skyline), mesquite (extreme left center), sotol (center), barrel cactus (before visitor), as well as beavertail prickly pear, apache plume, sage, and a variety of long-stem grasses are part of Nature's garden.





THEY SCRAMBLED THROUGH THE BRUSH

Cruising the big timber in Oregon

THE 2½ MILLION ACRES of BLM lands in western Oregon, known as the Oregon and California lands, or simply O&C lands, are among the best managed in the world, but it wasn't always so. This is the story of some of the men who made it happen.

As late as 1937 the O&C forest was primarily virgin timber. Land composing the area was that which was recovered by the United States from land grants made shortly after the Civil War to encourage the settlement and development of western Oregon. In return for the grants, the Oregon and California Railroad Co. was to construct a railroad from the Columbia River near Portland to the California border. Stipulations regulating the disposal of the land were inserted into the grants to favor settlers. In 1916, following a number of violations of the conditions of the grants, Congress passed the O&C Revestment Act reclaiming the land for the Federal Government.

In 1937 Congress authorized a program of sustained yield management for the area in the hope that the great wealth of timber the land was capable of producing would boost the economy of the area and the Nation.

By **ROSS A. YOUNGBLOOD**
BLM Natural Resource Specialist
Washington, D.C.

Timber Cruisers

Many people were involved in timber management planning during the crucial years following the O&C Act of 1937, but none contributed more or worked harder than the timber cruisers. Through the years the job attracted many capable and dedicated men, but for quality of work, training of others, and for the timeliness of their contributions, five men were outstanding. They are Lloyd De Groote, Floyd Fogelquist, Don Crom, Eric Rutquist, and Cecil Smith. All but Cecil Smith, who checked the work of the other four, have retired. Cecil is now State Check Cruiser in BLM's State Office in Oregon.

The timber cruiser is a keyman in any timber management plan. It is his job to measure the board-foot volume in a proposed sale tract and to determine the value of the timber to be sold. In the early days, he also prepared a plan for logging the tract. This included the construction of the roads necessary to gain access to the area.

The cruiser had an office and a desk where he did his [illegible]perwork, but most of the time he spent in the woods [illegible]hering facts and figures he needed for his reports.

A Special Breed

Because they gathered their own data in the field, these men had or developed talents and inclinations that set them apart as a special breed. They were tough—just as happy walking up the mountain as down—they had brains to match their brawn, and they possessed a rock-ribbed integrity that gained and held the respect of industry. Then there was that special quality of mind that went into their total makeup. They might spend 5 days working out of a primitive camp tacked to the side of a mountain, then return to the same spot over the weekend to hunt because there was simply no other place they would rather be. Their days of discontent were the times they had to spend in the confines of the office. Yet, they were known for the perfection and legibility of their reports.

The timber cruiser stood between BLM and the timber industry. He was expected to get 100 cents for every dollar's worth of timber the government offered, and his estimates of the volume and value of that timber were expected to be as nearly 100-percent correct as possible.

Nothing so clearly illustrates the quality of the work [illegible] BLM's early-day timber cruisers as the confidence [illegible]e timber industry placed in their cruiser reports. When De Groote or Crom said there were so many board feet of prime Douglas-fir to be harvested from a certain tract, buyers stepped up to bid, confident of what they were buying.

During the late 30's and early 40's roads in western Oregon tended to follow populated valleys. Because there had been no previous logging, the timbered ridges and watersheds were seldom penetrated by even the most primitive roads.

Beyond Road's End

The timber cruiser often found that the tract he was to appraise lay far beyond road's end. Getting there often took more stamina than an entire day of cruising. The way in was apt to wind across steep ridges, and a 1- or 2-hour hike out after a hard day's work was not uncommon. To make the walking less difficult the timber cruiser and his compassman would spend the greater part of the first day selecting and cutting out a trail. This time was not lost, for it cut down the walking time on subsequent days. Later, the logging access road was likely to follow the trail route.

When the walking time to the job exceeded 2 hours each way the cruiser usually chose to camp at the working site. A work camp was a pretty good imitation of roughing it; many items available to the modern camper were unknown in those early days. Furthermore, everything for the camp had to be packed in over a rough trail on the backs of the cruiser and his compassman. The load included food, bedding, and shelter.

Shelter was a water repellent canvas fly stretched over a pole suspended between two trees so as to afford protection from the prevailing winds as well as from the nearly constant rain. A fire was built just outside the shelter, far enough away to prevent setting the canvas afire but close enough to throw warmth into the tent.

Beds were made from materials found near the campsite. Hemlock bough and moss, for example, made a fine mattress. Over this the men spread a waterproof tarpaulin, and two lightweight blankets finished the bed. In later years air mattresses and sleeping bags became common and added a measure of comfort.

One day was used by the cruiser and his helper to pack in and make camp. The compassman's job thereafter was to build fires, supply camp wood, and wash and dry the dishes. The cruiser usually did the cooking.

Cruiser Cooking

Stews were a favored camp dish. They tasted good, were nourishing, and could be prepared in large batches that lasted several days. Bears were always a problem, since they possess a completely omnivorous appetite that finds palatable anything a man would eat, and much that he would not. Eric Rutquist recalls being chased up a tree by a bear who had smelled his lunch. From the tree he watched in utter frustration while the hungry animal devoured the last crumb and then ambled off into the forest, leaving Eric to finish the day without food. To prevent bear raids during the day, the stewpot was hung out of reach in a nearby tree.

Beans and bacon were among other camp staples. For breakfast the men relied on oatmeal—hot, quick to prepare, nourishing. Peanut butter and jam spread between slices of bread made a sustaining lunch. Dessert consisted of dried fruit. Coffee, made with creek water, woke a man up and chased away the morning chill.

Once the camp was established or the trail hiked, the cruiser and his compassman were ready to go to work. Proper dress was essential. O&C forest land lies like a green-checked saddle blanket across the bony ridges of the Coastal Range, then swoops down into the Willamette Valley and up into the Cascade Range. Prevailing winds from the Pacific Ocean blow across the Coastal Range and drop up to 100 inches of rain each year. This abundance of water makes Douglas-fir grow well there, but it also leaves little time each year for forest workers to enjoy dry working weather. The cruiser's work went on in spite of rain or fog, and the dripping-wet undergrowth. It was this condition of unending wetness that dictated the cruiser's outfit.

"Tin Pants"

To keep his footing on the steep slippery terrain, the cruiser wore heavy boots with caulked (spiked) soles. For waterproofing the boots were dabbed with compounds of grease which had either a whale oil or an asphalt base. When these compounds were not available the cruiser might use pitch bled from felled trees. This treatment was not entirely successful and wet socks before a campfire were common on the cruise. In the beginning pitch was also used to treat the canvas clothes the men wore. Pitch-treated trousers, commonly called "tin pants" or "wooden britches," were a trademark of the early Oregon timber cruiser. Over the tin pants, workers wore a vest and a pitch-treated canvas jacket. The vest, protected from water and containing ample pockets, was an ideal place for the cruiser to carry the tools of his trade. The outfit was completed by a canvas hat.

But the best of waterproofed gear could not take care of all possibilities. As the cruiser and his compassman moved through the forest they often had to cross streams. There were no bridges but most could be waded, although the water was often chest deep. In summer nobody minded this, and in winter when the weather was cold enough a crossing could be made over ice.

It was the in between times that the men hated, those cold days that called for cold wading and a colder reception on the other side. Usually the men would strip and carry clothing and gear high overhead. On the opposite shore they would quickly put on their long underwear and build a fire to dry out and warm up. Since reasonable comfort depended on a quick fire, kindling was prepared before crossing and carried to the other side. Eric Rutquist recalls a time he forgot to prepare kindling. Soaking wet from crossing a stream, he found that the time he spent dressed in damp underwear while looking for a pitch-rich branch to start a fire, some of the coldest, longest minutes he can remember.

Original Survey

The original survey of O&C lands had been completed in 1884. This survey had established the boundaries of townships (36 square miles) and sections (1-square mile). All O&C timber sales were offered in a minimum of 40-acre units (one-sixteenth section). The cruiser[illegible] first job was to establish boundaries for the sale tra[illegible] This required finding the bearing trees that had b[illegible] blazed more than 50 years before to mark section lines. In the dense forest this was, within itself, quite a feat. A day's time could be lost in locating a crucial corner.

Only when these time-consuming details had been completed were the cruiser and compassman ready to determine the volume and quality of timber within the sale tract. Prior to World War II, a 20-percent cruise of the sale area was customary. In a 40-acre tract this required the cruiser to work four, 66-foot strips through the tract.

A BLM cruising team deep in the forest.

The compassman was responsible for setting a straight-line course through the trees and undergrowth while the cruiser examined each tree within a 33-foot swath on each side of the line. To measure volume the cruiser determined the diameter of each tree taken 4½ feet above the ground, and counted the number of 32-foot logs that could be cut from the bole. He made a notation for each tree that included diameter and the number and quality of its logs. A typical notation might read: 56/5—1-2-2-3-5. The notation *56/5* indicates a tree 56 inches in diameter and five logs high. The remainder of the notation indicated the quality of the logs, the *1* meaning one log of the best quality and the *5* a cull log at the top.

Because of the rain and wet vegetation, paper was useless for making field notes, and both the cruiser and compassman carried sheets of erasable celluloid. At night these notes were transferred to paper under she[illegible] ter, and the celluloid was wiped clean for use the next [illegible]y.

Eyeball Estimates

At the beginning of a new cruise, the timber cruiser would measure diameters with a steel tape. But, after a short time he "found his eye." He had regained his ability to estimate diameters without measurement. These eyeball estimates allowed the work to proceed at a much faster pace, and from an expert they were uncannily accurate. Height measurements were determined from tape measurements of wind-felled trees. Since dominate trees in a mature forest tend to attain a common height, this method was accurate.

[illegible] Crum cruises a wind-thrown tree.

An inate knowledge, born of long experience, was the stock-in-trade of the expert cruiser. From the wealth of that experience he was able to recognize telltale signs of defects buried deep inside the tree bole that could turn an apparent number one log into a number three, and he could accurately estimate the amount of breakage that might be expected during logging operations. These observations were entered into his field notations so that all could be considered when the final volume figures were tallied back in the office. It was this kind of knowledge, not taught in forestry school, that constituted the plus-quality of a Floyd Fogelquist or a Don Crom and allowed the timber industry to place full confidence in their work.

The compassmen were understudies to the timber cruisers, and almost to a man their ambition was to step into a cruiser's shoes; however, the compassman carried responsibilities all his own. He had to set a straight course through dense undergrowth, and he was responsible for mapping the tract. Much depended on his skill in developing contour lines to show the hills, ravines, and streams within a tract. He had to be able to read an aneroid barometer accurately, to use the abney hand level, and to make reasonably accurate calculations of distance by pacing. His map later became an important document in planning and executing the sale, and copies were in demand by prospective buyers for use in calculating the cost of logging the sale area.

In the final analysis, the timber cruiser's professional competence rested on his ability to convert the results of his fieldwork into hard figures. All notes were translated into two figures, the total board-foot volume and the appraised value of the tract. The cruiser's figures were basis of all bidding.

Many agencies and many people were affected by the results of his decisions: the Government acting in the public interest, the buyers who had to make a profit from the timber purchased, and the community whose economic well-being depended on timber industry pay rolls.

Impressive Figures

In cruising the O&C over the years, these four men accounted for some impressive figures.

Lloyd De Groote, in 25 years, cruised 2½ billion board feet of timber that sold for $60 million.

Floyd Foglequist appraised 2½ billion board feet that sold for $40 million.

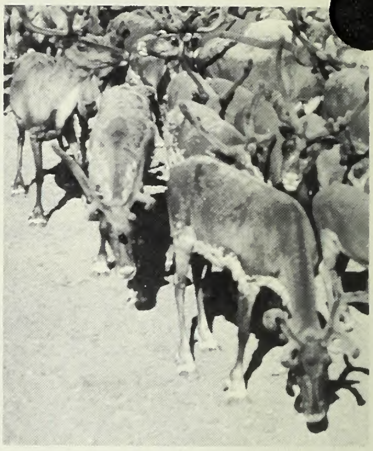
Eric Rutquist appraised 2¾ billion board feet that brought over $73 million.

Don Crom, working in the highly productive Eugene district, cruised 3 billion feet at a total value of over $80 million.

Altogether these four men cruised over 10 billion board feet of timber which sold for more than $250 million and which, when manufactured into wood products, increased in value 25 times for a total impact on the national economy of $6¼ billion.

These early-day cruisers were general practitioners of the forestry profession. Their knowledge of timber values came from a broad understanding of the total industry, and there were few jobs within the industry that they could not have handled well.

As timber cruisers they looked at a tree in terms of logs that would be manufactured into beams and 2 by 4's, into siding and flooring, into an almost endless variety of wood products. Yet each man appreciated the forest as a living community, and each realized that if he did his job well the forest would prosper. How well they did their jobs is evident in the productive forests of the O&C lands in Oregon today. □



RAISING REINDEER ON THE TUNDRA

Alaskan herds produce gourmet steaks and a profit

WHEN DINING out in an Alaskan city, or in Chicago, Portland, or San Francisco, try a reindeer steak. It's a gourmet item for the gourmet appetite. If its on the menu, most likely the steak came from Alaska, where in the western reaches of the State reindeer are raised by Eskimo herdsmen.

Twelve herds, consisting of some 35,000 animals by 1965 count, are the source of all commercially produced reindeer meat in Alaska. Eleven of the herds, located on or adjacent to the Seward Peninsula, are owned by Eskimos. One herd, on Nunivak Island, is owned by the Federal Government.

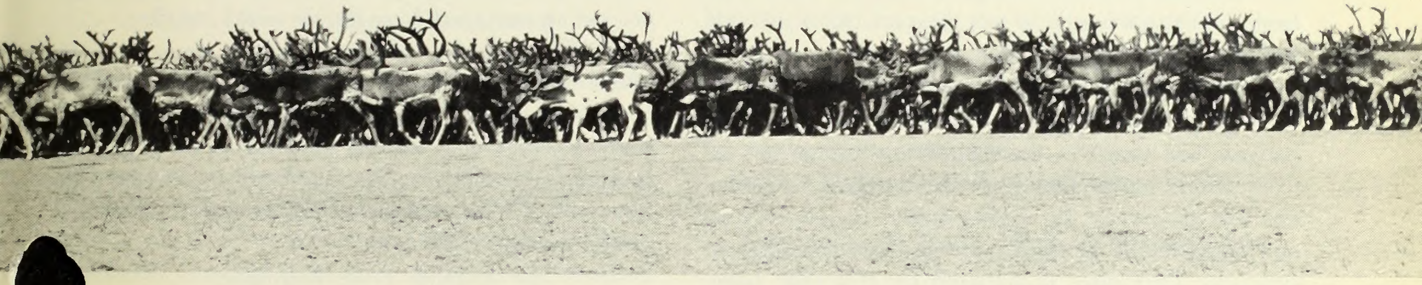
Reindeer production in Alaska can be credited to Yankee whalers from New England. While hunting whale in the Bering Sea and the Arctic Ocean in the 1870's and 1880's, the heyday of whaling, whalers also hunted all other sea and land mammals for their marketable products and, to a much lesser extent, for food.

These activities decimated the Eskimos' resources and left them in a precarious condition. Numerous instances of starvation are documented in a report on the introduction of reindeer into Alaska that was prepared by Dr. Sheldon Jackson in 1893. Through the 1890's and until 1910 he was the General Agent of Education in Alaska for the Bureau of Education of the Department of the Interior. Starvation deaths were reported at Nunivak, King, and St. Lawrence Islands, and at coastal villages from the Yukon-Kuskokwim delta northward to Point Hope.

By **JOHN D. ABRAHAMSON**
Resource Economist
Bureau of Indian Affairs

Captain Healy

A significant contribution toward easing the plight of the Eskimos was made by the U.S. Revenue Cutter Service, an agency of the U.S. Treasury and a forerunner of the Coast Guard. In fact, Capt. M. A. Healy, commander of the revenue steamer *Bear*, made the ggestion to Dr. Jackson that reindeer might be the solution to the Eskimo's problems. From 1879 onward, revenue cutters made annual summer visits to the Alaskan shores of the Bering Sea. The officers of the revenue service came to have an intimate knowledge of the condition of the Eskimo, for at that time the service was responsible for the welfare of the Alaskan natives. It administered law and order, provided medical service, and distributed provisions. The cruises of the revenue cutters extended to the Siberian shores, and there the grazing of domesticated reindeer by the Chuckchee people was observed.



Captain Healy warned of the gradual exhaustion of the native food supply. From time immemorial, he wrote, the Eskimos had lived principally on whale, seal, walrus, salmon, and caribou. In the persistent hunt of white men for the whale and walrus, he noted, the walrus had largely disappeared and the whale had been driven beyond the reach of the native. The disappearance of the mammals ended a major source of the food supply, and starvation and gradual extinction of the people appeared inevitable in the near future.

Reindeer From Siberia

As a replacement for the resources lost to whalers, Captain Healy and Dr. Jackson obtained over a 4-year period about 1,300 reindeer from Siberia. These were transported to the Seward Peninsula where the first Alaskan reindeer herds were established. The herds flourished in the early years. Under close herding, the reindeer population almost exploded, increasing as much as 25 to 33⅓ percent annually.

Nonnatives began to see possibilities in a thriving commercial reindeer industry. Ample and free ranges, rapid rates of reproduction, and low operating costs attracted white people to the industry.

By the late 1920's and early 1930's it was estimated that the reindeer had increased to more than 630,000 animals. Then a decline set in. Large-scale operations led to imprudent practices and to a rapid, disastrous drop in numbers of reindeer. Depletion of ranges, inadequate herding, and attacks by an increased number of wolves, all combined to bring ruin to the industry.

The depletion of the ranges was due to excessive grazing and trampling in many areas during both summer and winter. Fires set by prospectors and miners also damaged the ranges. Inadequate herding was attributable to hardships experienced, crude range facilities, absentee ownership, village attractions, and failure to understand the habits and requirements of the deer. The lack of herding led to losses by wolves and bear, to starvation, and the deer straying away with herds of caribou. These and numerous other factors, both physical and economic, contributed to the decline of the industry.

The "Reindeer Act"

Following the decline, the Congress, by the Reindeer Act of 1937, provided for the liquidation of nonnative interests through the purchase of capital equipment and all remaining reindeer. Today there are the 12 herds, which were mentioned earlier, that are producing meat for the commercial market. There are, in addition, four other herds. One of these is to be used in various husbandry and feeding experiments, and another is native-owned but has not been under control and management for many years. Two are the remnants of community herds, a type of enterprise once encouraged by the Federal Government as a source of native subsistence. The community herds have been less than successful because no villagers care to bear responsibility for them. They have not been subjected to husbandry practices and have been treated much like game animals.

Native reindeer herdsmen have faced so many serious handicaps that it is surprising the industry has persisted at all. Chief among the handicaps are environmental, cultural, and economic conditions. While reindeer apparently thrive under the harsh subpolar climate, and on the tundra, which is shunned by other large mammals, man endures only by being ever careful and prepared to meet unexpected emergencies and dangers. The Eskimo's culture orients him to the maintenance of reindeer as reserves to meet subsistence needs while his enterprise is designed for a cash-based economy geared for the marketplace and, as such, demands husbandry practices of at least a modest order. Barter, directly and on a credit basis, is still the predominant means by which he obtains goods from the local trader. The exchange of cash or the use of bank reserves are still largely beyond his acceptable understanding.

Management Program Established

His adaption to these new cultural and economic patterns and practices has lagged for reasons not entirely within his control. For years teachers in the native schools carried the responsibility for supervising and advising the herdsmen on reindeer management practices. They were ill-prepared for this task, being trained in education of children and not in animal husbandry. Only in the early 1950's was a continuing management program established in the Branch of Land Operations of the Bureau of Indian Affairs, and trained supervisory personnel employed.

The reindeer industry has experienced its greatest frustrations with marketing problems, beginning with slaughter. Unlike stockmen elsewhere, reindeer men have had to perform the entire gamut of activities from raising the deer to slaughtering to marketing. The inability to readily move prime animals and culls off the range and on to the marketplace on a systematic basis is currently slowing the establishment of improved herd management practices.

Activities initiated in the past 2 years, however, are already bringing improvements. Reindeer men have established their own organization, the Northwest Alaska Reindeer Herders Association, to bring about greater cooperative effort and general improvements to the industry. This organization led last year to the design of a herdsman's recordbook for maintaining accounts and a record of husbandry activities. On his request, each herdowner was given personal instruction in using the recordbook.

Significant Action

Possibly the most significant action for long-rang benefits took place in late 1967 with the establishm of the Alaska Reindeer Industry Advisory Committe Its purposes are to furnish leadership, obtain technical assistance and economic aid, and promote education and training for the people participating in the industry. Participants are the Northwest Alaska Reindeer Herders Association, the Bureau of Indian Affairs, the Bureau of Land Management, and the State of Alaska. BIA has had administrative responsibility for the ranching aspects of the industry but will relinquish these responsibilities as the native leadership develops skills to assume them. The ranges are under the adminstrative jurisdiction of the Bureau of Land Management. BLM will continue to manage the habitat and to determine the suitability of new areas for reindeer grazing. The State of Alaska will assume responsibility for advice, guidance, and promotion of the slaughtering, processing, and marketing aspects of the industry.

Benefits from the reindeer industry are several. It offers employment to natives as full-time or part-time herders, as helpers during roundups, and as employees in slaughtering. The reindeer are also a standby reserve to meet the possible need for another source of food in the event of a disastrous shortage arising from unsuccessful hunting or fishing.

Income From Reindeer

In 1963, for example, 240 families received some i come, and 100 families received a substantial portion of their income, from privately owned reindeer operations. Assuming a conservative number of five persons per family, then some 1,200 persons received some benefits, and around 500 persons derived a substantial portion of their livelihood from reindeer. The government herd at Nunivak Island also considerably benefits the natives there.

Bordering the length of the Bering Sea coast southward from the Seward Peninsula is a broad area of tundra that is unused except by small fur-bearing animals and large numbers of nesting waterfowl. The waterfowl congregate at streams, lakes, and ponds near the coastal fringes. Away from these areas, there is no productive use for the tundra except as reindeer ranges. It is estimated that about 85 million acres could carry about 400,000 head and provide full support for approximately 5,600 people, and partial support for an additional 11,000 people. The reindeer industry offers a significant economic development potential for this extensive area which has few resources on which to build a self-sustaining economy to meet the needs of its future. ☐

LAND LAW REPORT

NEWS NOTES ON WORK OF THE PUBLIC LAND LAW REVIEW COMMISSION

Four New Studies Announced

Four new studies involving important aspects of public land policies are well underway:

Forage Resource of the Public Lands.—A contract was awarded to the University of Idaho at a price of $198,150, with a report due in March 1969. Six main aspects are to be examined: (1) Importance to local, State, and National economies of the forage resource and that segment of the livestock industry which is dependent upon the public lands; (2) relationship of grazing to other uses of the public lands; (3) authority for administration of grazing on public lands; (4) effect of public land grazing policies on the ranching sector; (5) alternative policies and systems of forage allocation and their probable effects on range users, the range livestock industry, local economies, and other land resources and resource users; and (6) land utilization projects.

Case studies will include 400 to 500 ranch budgets, permit histories for 75 ranches, interviews with 10 financial firms and appraisers who serve ranchers in the 11 Western States, and five land utilization project areas.

Dr. Arthur D. Smith is the Commission's project officer.

Outer Continental Shelf Lands of the United States—A contract was awarded to the Los Angeles law firm of Nossaman, Waters, Scott, Krueger, and Riordan. Contract price ceiling: $68,950. Due date: May 31, 1968. It will feature a complete analysis of the OCS Lands Act of 1953, and its administration and interpretation, with attention to such matters as how military restrictions are handled, Federal-State cooperation, and methods used in selecting areas for bids.

Staff project officer for the Commission is Joseph M. McDonald.

Fish and Wildlife Resources on the Public Lands.—Colorado State University is conducting the study at a contract price not to exceed $77,719. The report is due in December 1968. Objectives of the study include measuring the importance of Federal public lands to fish and wildlife production and harvesting, and a description of the various intergovernmental relationships existing in the field of fish and wildlife management.

Dr. Arthur Smith is staff project officer.

Withdrawals and Reservations of Public Domain Lands.—Contract was awarded to Charles F. Wheatley, Jr., Washington, D.C., practicing attorney. The study report is to be submitted to the Commission by May 30, 1968, at a price not to exceed $56,000. Among other points, the study will examine sources of authority for both congressional and executive withdrawals, and standards and criteria used by agencies in recommending withdrawals.

Joe W. Ingram is staff project officer.

Commission Hears Federal Viewpoint

The Commission invited Federal departments and agencies that are concerned with the retention, management, and disposition of the public lands to present their views on public land administrative problems at public hearings. The hearings, open to the press and the public, were scheduled in Washington, D.C., for April 5 and 6, 1968.

Eight of the departments and agencies invited to testify are represented on the Commission's Advisory Council because of their broad interest in, or responsibility for, public land management or disposal: Department of Defense, Department of Justice, Department of the Interior, Department of Agriculture, Department of Housing and Urban Development, Atomic Energy Commission, Federal Power Commission, and General Services Administration.

Five Personnel Appointments Announced

Five new professional personnel appointments to the staff of the Commission have been announced by Milton A. Pearl, Commission Director. They are: Jerry L. Haggard and James P. McAleer, legal specialists; Frank W. Clayton and Frank H. Skelding, resource specialists; and Dr. Don A. Seastone, economist.

PUBLIC SALE BULLETIN BOARD

This is a compilation of the most up-to-date information possible on up-coming sales of public lands by land offices of the Bureau of Land Management. For details of land descriptions, prices, and other information pertinent to sales, you must write the individual land office concerned. In most cases, there are adjoining landowners who have statutory preference rights and may wish to exercise them to buy the land. Sales notices will point out, insofar as possible, problems relating to (1) access, (2) adjoining owner preference rights, (3) small-tract sales limitation of one per customer, and other pertinent information. When possible, all sales are scheduled far enough in advance so ample notice can be given in Our Public Lands. *Sales listed can be canceled on short notice for administrative and technical reasons. A listing of BLM land offices with addresses is found on the opposite page.*

Key: A, acre; app, appraised; est val, estimated value; Cty, County; veg, vegetative; pot, potential; pub, publication cost; elec, electricity; tel, telephone.

CALIFORNIA

.36 A, triangle shape, 2 miles from Grass Valley, Nevada Cty. Bisected by dry gully; light brush cover; a few pines. Isolated by private lands; no legal access. App $400.

6.23 A, triangle shape, adjoining Redding, Shasta Cty. Hilly; good annual grass undercover; dense overstory of medium size oak and manzanita. 42 inch rainfall. No legal access. App $2,850.

IDAHO

2 adjoining tracts, 40 A each, 10 miles northwest of Moreland. Access by Cty road. Rocky; limited value for grazing. 13 A one tract and 6 A of other have been cultivated and irrigated. Oil and gas reserved to U.S. App $830 and $740 plus $1.20 pub each.

40 A, 10 miles northwest of Moreland. Cty road ¼ mile away. Undulating; rock outcrops. Limited pot for agricultural development in conjunction with adjoining private land; grazing is best use. Oil and gas reserved to U.S. App $520 plus pub $1.20.

80 A, ¼ mile from above tract and Cty road. Similar terrain; sagebrush-grass cover. Best use is grazing; some farming pot in conjunction with adjoining private lands. Oil and gas reserved to U.S. App $1,040 plus pub $2.40.

120 A, 10½ miles northwest of Moreland. Range road leads to northeast corner. Undulating; sagebrush-grass; suitable for grazing. Oil and gas reserved to U.S. App $1,320 plus pub $3.60.

160 A, 8 miles northwest of Moreland and 1½ miles south of U.S. 26; Cty road within ¼ mile. Undulating; shallow silt loam soil; considerable rock. Fence along most of north boundary and a short part of west boundary. Suitable for grazing. Oil and gas reserved to U.S. App $1,760 plus pub $4.80.

80 A, 2 miles north of Tabor and ¾ mile east of Cty road connecting Tabor with U.S. 26. Undulating; shallow soil; rock outcrops. Suitable for grazing. Oil and gas reserved to U.S. App $880 plus pub $2.40.

40 A, 10 miles northwest of Minidoka. Good access by Cty roads along east and south boundaries. Undulating; some natural drainages and scattered float rock; cheatgrass and forbs. Sandy silt loam soil has fair suitability for farming provided irrigation water is obtained. Oil and gas reserved to U.S. App $2,000 plus pub $56.71.

MONTANA

3 isolated tracts 25 miles northeast of Broadus. 40 A app $720; grazing land, stockwater available no legal access. 40 A app $660; grazing land, no stockwater. 668.16 A app $9,688.3[illegible] grazing land, no stockwater, access by private ranch trails.

2 tracts, 40 A app $800 and 200 A app $4,000, 50 miles south-southwest of Miles City. Nearly level to rolling, steep ridges; native grasses and shrubs; now used for grazing. Access through private ranch.

2 tracts, 79.40 A app $992.50 and 40 A app $500, 35 miles southwest of Broadus. Access by foot across private land from Cty road. Moderately to steeply broken; native grasses and shrubs; used for grazing; not suitable for cropland.

2 tracts, 40 A app $400 and 33.85 app $3,900, 5 miles south of Shelby. No improvements; past use was wildlife and livestock grazing. Access to both by privately owned roads. 40 A tract is in rough breaklands; the other is lottage along banks of Marias River with farmland pot.

80 A, 45 miles north of Circle, No improvements, Rolling to steeply rolling; grazing best use. Access available from Cty gravel road. App $1,720.

480 A, 6 miles north of Big Sandy. Slightly sloping; annual weeds; boundary fences on north and east sides; dry-farmed prior to 1960. Access by unimproved Cty road. App $32,900.

3 tracts, 12 miles southeast of Ashland: 40 A app $820, 147.37 app $3,021.09, 319.66 app. $6,553.03. Moderately rolling; native grasses and shrubs. No range improvements, no stockwater available, unsuitable for cropland; best use is livestock grazing.

3 tracts, 40 A each, 30 miles north of Circle. Nearly level creek bottom to steeply sloping hillside; native grasses. Access by ranch trail; some boundary fences; stockwater available on 2 tracts. Each tract app $800.

10 tracts, 40 A to 200 A, 35 miles from Broadus in Powder River country. Stockwater available on 1 tract; some have [illegible]ces. Access by private ranch trail or Cty road. Tracts app [illegible] to $22 per A.

320 A, east side of Rock Creek Valley in southwestern Granite Cty. 7 acres flat and have been cultivated for hay; rest is mountainous with small patches of Douglas-fir. Surrounded by private land. Public road ½ mile away. App $8,420.

NEW MEXICO

43.45 A, 5 miles southeast of Silver City. Hilly grazing land, shallow soils. Elec available. App $1,600.

768.94 A, 9 miles south of Animas and 3½ miles west of State road 338. Rolling hills, grazing land with shallow soils. REA elec and rural tel. App $11,500.

7 tracts, 17 to 75 A, near Tyrone. Rough, mountainous grazing land. No utilities, no access. App $30 an A.

70 A, 2 miles east of Carlsbad. Level to rolling; poor turf; moderate to heavy cresote bush; thin rocky sandy loam. Elec ¼ mile. App $13 to $17 an A.

70.04 A, at Cotton City, 26 miles southwest of Lordsburg. Level; deep sandy loam; suitable for industrial or residential use; closed to additional appropriation of underground water for agriculture. Elec, gas, tel available. App $1,750.

40.14 A, 30 miles north of Taos and 8 miles northwest of Questa. Rolling; sagebrush; no public access. Elec 1 mile. App $1,200.

NEVADA

600 A, 5 miles northeast of Oreana, 20 miles north of Lovelock. Nearly level, unimproved brushland. No utilities to land. Access by highway frontage and Cty road. Limited grazing probably best use.

[illegible]0 A, 70 miles northwest of Winnemucca in Kings River Valley. Legal access by Cty road; elec available. Best use is in conjunction with agricultural activities on adjacent land. Zoned for open use.

80 A, 11 miles north of Orovada in Quinn River Valley. Legal access by Cty road from U.S. 95. Elec and tel available; irrigation water permit not available. Level, primarily cheatgrass. Best use is for ranch agriculture related uses.

960 A, 45 miles west of Winnemucca in Trout Cheek Basin. Access by Iron King Mine Road. Elec power available nearby; irrigation water permit available. Best use is agriculture which open use zoning permits.

40 A, 1½ miles west of Hawthorne. Physical access by jeep trail from Cty road. Generally flat; greasewood, annual weeds, native grasses. Best use is rural residential development which zoning permits. Tel and elec available 1½ miles from land.

6 A, within Ely city limits. Zoned for single family residential estates. Access and utilities. Steeply sloping with sagebrush and juniper vegetation.

480 A, 41 miles south of Battle Mountain in Middle Reese River Valley. Physical access by unimproved road from State Highway 8–A. Open use zoning permits development related to agriculture. No irrigation water permit available.

17 tracts, 2½ A each, 3½ miles east of Carson City. No physical access to some tracts; legal and physical access to others by Pinyon Hills Drive and single-lane roadways. Zoning permits residential use.

Monthly auctions are held in the Las Vegas and Reno-Carson City areas in which public land tracts are offered at public sale. Tracts offered are primarily suitable for urban or suburban development, including residential and industrial uses consistent with local land use plans. Query Reno Land Office for sizes and values of specific parcels.

OREGON

17 tracts, 23 to 160 A, southwest of Pendleton. Rolling to moderately steep and rough. Soils mostly shallow, sandy loams and rocky. Vegetation mostly native grasses with some cultivated. Some tracts without legal access. App $420 to $6,450.

40 A, 5 miles northwest of Ontario. Bounded north and west by rangeland, south and east by alfalfa hay land. Agricultural potential but no legal access. App $3,000 plus pub $62.50.

40 A, 8 miles northwest of Bend. Rolling, rocky sandy soil, moderate stand Western Juniper, sagebrush, grass. Suitahle for homesite development. 2 A cultivated and irrigated. Quarter mile from U.S. 20, but no legal access. Portions have view of Cascades. App $3,000 plus pub $86.96.

UTAH

400 A, 40 miles southwest of Monticello. Rough, rocky, grazing land. Access by unimproved dirt road usually closed by snows. Oil, gas, potash, sodium and ditches and canals built by authority of U.S. all reserved to U.S. Buyer must agree to allow U.S. access for 5 years and right to excavate and remove material from archeological ruins in NE¼NE¼, Sec. 29. App. $4,400.

WASHINGTON

160 A, 1 mile east of Oroville. Moderate to very steep; poor access. About 15 A have agriculture pot, but irrigation water not available now; rest is good only for grazing. App $2,560.

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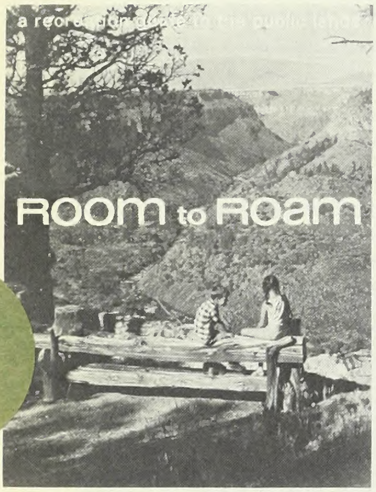

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